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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,676	07/12/2001	Bruce J. Barrett	SOM01-P329A	2249

277 7590 08/27/2002

PRICE HENEVELD COOPER DEWITT & LITTON
695 KENMOOR, S.E.
P O BOX 2567
GRAND RAPIDS, MI 49501

EXAMINER

CADUGAN, JOSEPH A

ART UNIT	PAPER NUMBER
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3736

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

JC

Office Action Summary	Application No.		Applicant(s)	
	09/807,676		BARRETT ET AL.	
	Examiner		Art Unit	
	Joseph A. Cadugan		3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Specification

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-10, 14-26, 30-46, and 48-62 are rejected under 35 U.S.C. 102(a) as being anticipated by Lewis et al. (USP 5,902,235). Lewis et al. teach a spectrophotometric instrument for taking a hemoglobin oxygen reading in the brain. It has one emitter (38 or 138) and multiple sensors (140 and 142) for taking measurements at different areas. In sensor is near the emitter, and one is further away (figures 3-5). It displays the analyzes the data (18) and displays it (22), and the data can be compared (see abstract). There is a quantitative readout (col. 1, ln. 36) as well as a graphical display (see figures 1 and 10). There is a pad (136) placed on the forehead (figure 1). The graphs are shown concurrently with a reference point for quick visual comparison (figure 10). The sensors are activated in sequence (see abstract) but essentially simultaneously (col. 9, Ins. 9-33). There are multiple usable wavelengths in the infrared range that are applied sequentially in short bursts (col. 9, Ins. 9-33). Several measurements are taken per burst and an average is calculated (col. 9, Ins. 33-52). It is implied that there can be multiple emitters and detectors (col. 5, Ins. 50-67).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-13 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al. as applied to the claims above, and further in view of Chance et al. (USP 5,853,370). Lewis et al. teach all of the limitations of the claims except stretching between hemispheres. Lewis et al. never state whether or not the sensor array spans different hemispheres. Chance et al. clearly show sensor arrays spanning across hemisphere lines (figure 1) and being placed within different hemispheres (figures 7, 7A, and 7B). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the sensor arrays spanning hemispheres taught by Chance et al. with the device of Lewis et al., as this would allow greater and more diverse data sets, thus enhancing the capabilities of the Lewis et al. device.

4. Claim 47 is rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lewis et al., as applied to the claims above. Lewis et al. is silent on the limitation of refreshing the screen. However, examiner holds that this is so notoriously well-known in the art that the Lewis et al. device inherently carries out this function, but it is never mentioned in the specification. Screen refreshing is used in most modern displays, including EKGs, EEGs, radar displays, etc.. In the alternative, examiner holds that it would have been obvious to one of ordinary skill in the art at the time of the invention to refresh the screen of Lewis et al., as this technique is notoriously well-known in the art.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph A. Cadugan whose telephone number is (703) 305-0879. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver can be reached on (703) 308-2582. The fax phone numbers for the organization where

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this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

Joseph A. Cadugan



August 22, 2002



KEVIN SHAVER 8/26/02
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700